



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,457	01/10/2002	Chang-Wen Cao	0462.1 - P - 5909	5535
7590	05/04/2004		EXAMINER	
Chang-Wen Cao 235 Chung - Ho Box 8-24 Taipei, TAIWAN			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 05/04/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/042,457

**Applicant(s)**

CAO, CHANG-WEN

**Examiner**

John L. Goff

**Art Unit**

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to the amendment received 2/26/04. The previous objections to the drawings and specification and the previous 35 USC 112 rejections have been overcome. It is noted claim 2 requires "injection-molding upper engaging pieces at inner sides of the zipper strips and injection-molding lower engaging pieces at inner sides of the films". It is noted that while "upper engaging pieces at inner sides of the zipper strips" may read on merely molding zipper teeth, it appears applicant intends the language to require molding pieces such as those shown as reference numerals 17 and 18 in Figure 10. In light of this interpretation the reference to Kuse (U.S. Patent 5,536,343) only shows molding "lower engaging pieces at inner sides of the films" such that the previous rejection over Kuse in view of the admitted prior art has been withdrawn in favor of a new rejection over the admitted prior art in view of Kuse, it being noted the admitted prior art clearly shows (simultaneously) molding both types of engaging pieces.

#### ***Drawings***

2. The drawings were received on 2/26/04. These drawings are acceptable.

#### ***Specification***

3. The substitute specification received on 2/26/04 has been entered.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (Figures 1-4 and Specification pages 1-3) in view of Kuse (U.S. Patent 5,536,343).

The admitted prior art discloses a known method for forming upper and lower engaging pieces on a pair of zipper teeth strips (Figures 1-4). The admitted prior art teaches providing a pair of zipper strips wherein the inner side of each zipper strip has a connecting strip, providing the inner side of the zipper strips with zipper teeth, scraping part of the zipper teeth to create separated banks of zipper teeth, melting and coating by thermal pressing two films onto the spaces between the banks of zipper teeth, punching notches in the inner sides of the spaces between the banks of zipper teeth, guiding the pair of zipper strips onto an upper and lower injection mold, tensioning the zipper strips within the molds, injection molding (simultaneously) upper and lower engaging pieces on the zipper strips, removing the zipper strips from the injection mold, and cutting the zipper strips along the notches to form completed zippers (Figures 1-4 and Page 1, lines 15-24). The admitted prior art is silent as to forming a hole, i.e. not removing the connecting strip, in the zipper strips as an alternative to forming a notch. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a hole (i.e. not removing the connecting strip) in each zipper strip as opposed to forming a notch as it is known in the art to form a hole in a zipper strip in the same location as the notch

Art Unit: 1733

wherein the hole is used to precisely position the zipper strip within an injection mold for molding engaging pieces as shown by Kuse.

Kuse discloses a method for forming engaging pieces on a pair of zipper teeth strips (slide fastener chains) to form a zipper (slide fastener) wherein the inner lateral side of each zipper teeth strip is provided with holes so that the zipper teeth strips are precisely positioned within an injection molding apparatus for molding the engaging pieces (Figure 1 and Column 6, lines 30-47 and Column 14, lines 18-25). Kuse teach a method comprising providing a pair of continuous zipper strips having spaced banks of continuous zipper teeth thereon (Column 14, lines 44-50), applying, e.g. by melting, two films to the space between banks (Figure 2 and Column 7, lines 1-7), punching holes at inner lateral sides of the films (Figure 5 and Column 7, lines 56-60 and Column 12, lines 38-40), guiding the pair of zipper strips in an upper and lower injection mold, tensioning and precisely positioning the zipper strips within the molds using the punched holes (Figure 1 and Column 8, lines 39-45 and Column 9, lines 48-58), injection molding engaging pieces on the zipper strips (Column 11, lines 50-56), removing the zipper strips from the injection mold, and cutting the zipper strips along the holes to form completed zippers (Figures 1 and 9-11).

### ***Response to Arguments***

6. Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues, "However, referring to the attachment drawing, it is shown that in the manufacturing process of the present invention, the connecting strip 13 is never cut off, while in the citation USP 5,536,343, the connecting strips 34 are cut off

Art Unit: 1733

in the manufacturing process. In Fig. 2 of the prior art, it is also illustrated that the connecting strips 93 are cut off in the manufacturing process. Thereby, this is the different of the present invention from the citations. As above said, not to cut off the connecting strip is for precisely positioned the zipper strips in the upper and lower molds.” It is noted Kuse discloses a method for forming engaging pieces on a pair of zipper strips wherein the inner lateral side of each zipper strip (in the region of an applied reinforcing film) is provided with holes so that the zipper strips can be tensioned and precisely positioned within an injection molding apparatus for molding the engaging pieces. Kuse shows that after engaging pieces are molded the holes may cut (i.e. the connecting strip is cut) such that additional zipper parts may be molded. However, the general teaching of Kuse is that the holes are provided so that the zipper strips can be tensioned and precisely positioned within an injection molding apparatus for molding the engaging pieces, and this is the teaching that is applied to the admitted prior art.


### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff  
April 28, 2004



JEFF H. AFTERGUT  
PRIMARY EXAMINER  
GROUP 1300